YARD-MAN

OUTDOOR POWER EQUIPMENT
for all seasons

Summer | Winter | Spring | Fall

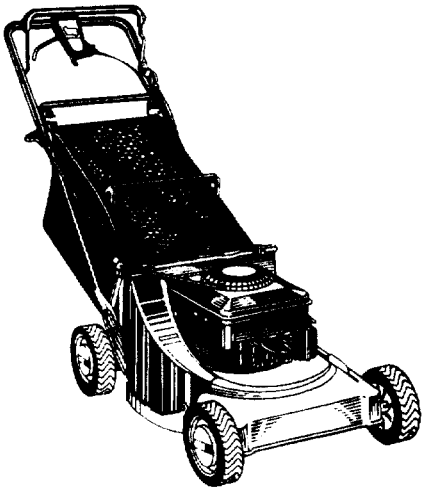
Owner's Manual

- SET-UP
- OPERATION
- MAINTENANCE
- PARTS LIST

IMPORTANT:
Read Safety Rules and Instructions Carefully

21" 6-SPEED ROTARY MOWER

Thank you for purchasing an American-built product.



Model Number 123-848F401

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact MTD Products Inc, P.O. Box 368022, Cleveland, Ohio 44136-9722.

PRINTED IN U.S.A.

FORM NO. 770-8395H

IMPORTANT

SAFE OPERATION PRACTICES

THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR LAWN MOWER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL— **HEED ITS WARNING.**

DANGER: **Your lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.**

TRAINING

1. Read this owner's guide carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform one job: to mow grass. Do not use it for any other purpose.
3. Never allow children under 14 years old to operate a power mower. Children 14 years old and over should only operate mower under close parental supervision. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower to help prevent blade contact or thrown object injury. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like.
2. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
3. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
4. Before working with gasoline, extinguish all cigarettes, cigars, pipes and other sources of ignition. Check the fuel level before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or until engine has been allowed to cool for at least two minutes after running. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
5. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
6. The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.
7. Never attempt to make a wheel or cutting height adjustment while the engine is running.
8. Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run. Mow only in daylight or in good artificial light.
9. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

OPERATION

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
3. Stop the blade when crossing gravel drives, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
7. Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
8. Do not run the engine indoors.
9. Never cut grass by pulling mower toward you. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes. Always be sure of your footing. A slip and fall can cause serious personal injury.
10. Never operate mower without proper guards, plates or other safety protective devices in place.
11. Muffler and engine become hot and can cause a burn. Do not touch.
12. Do not operate this mower with the chute door open, unless the complete grass catcher or chute deflector is properly mounted on the mower.

MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also visually inspect blade for damage (e.g. bent, cracked). Replace with blade which meets original equipment specifications.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the mower with gasoline in the tank or gas containers inside of a building where fumes may reach an open flame or spark (e.g. gas hot water heater). Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves and excessive oil.
5. Check the grass catcher bag frequently for wear or deterioration. Replace a worn or damaged bag immediately. For safety protection, replace only with new bag meeting original equipment specifications.

SET-UP INSTRUCTIONS

IMPORTANT: This unit is shipped WITHOUT GASOLINE or OIL in the engine. Be certain to service engine with gasoline and oil before operating your mower.

NOTE: Reference to right or left hand side of the mower is observed from the operating position.

TO REMOVE MOWER FROM CARTON

Remove the carton inserts (if any). Remove the loose parts which are in the carton, lift the mower from the carton, or cut the corners of the carton and roll the mower out.

HOW TO SET-UP YOUR LAWN MOWER

(Refer to Figure 1)

1. Disconnect the spark plug wire and move it away from the spark plug.
2. Remove any cardboard pieces which may be between the upper and lower handles for shipping purposes. If there is any packaging (plastic or cardboard) around the upper handle, remove it.
3. For shipping purposes your mower is set with the wheels in the lowest cutting height position. Raise the mower to the highest setting for assembly of handle.
4. Remove the hairpin clips which are in the weld pins on the handle mounting brackets. Lift the handle assembly and turn it around (180 degrees).
5. Attach the handle by placing the bottom holes in the lower handle over the weld pins on the handle mounting brackets. Make certain the lower handle is seated securely into the handle mounting brackets.
6. Pull up on the upper handle to raise it into the operating position. Tighten the hand knobs on each side of the handle.

NOTE: *Your mower is shipped with the handle in the higher height position. If you wish to lower the height of the handle, refer to the Adjustment Section at this time.*

7. Secure the handle assembly by placing the hairpin clips in the inner hole on weld pins.
8. The rope guide and wing nut are attached to the starter rope, on top of the engine. Remove the wing nut from rope guide. Remove the rope guide from the starter rope.
9. With the spark plug wire disconnected and grounded, hold the blade control handle against the upper handle, and pull the starter rope out of the engine. Hold the rope guide as shown so the opening in the rope guide is toward the front of mower. Slip the rope guide around the starter rope and into the right side of lower handle using the hole shown. Secure using the wing nut.
10. Slip the starter rope into the rope guide on the side of the rear catcher panel assembly.
11. Make certain **all** nuts and bolts are tightened securely.

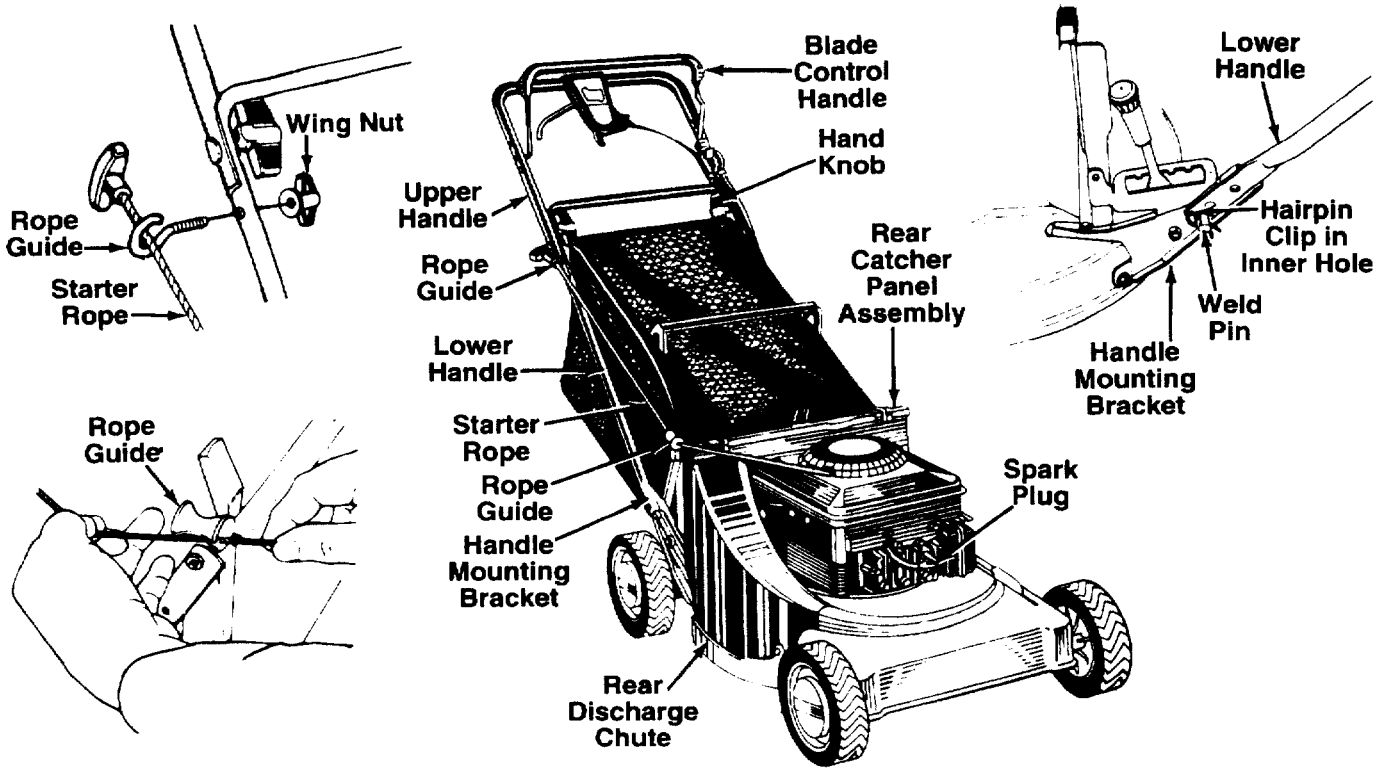


FIGURE 1.

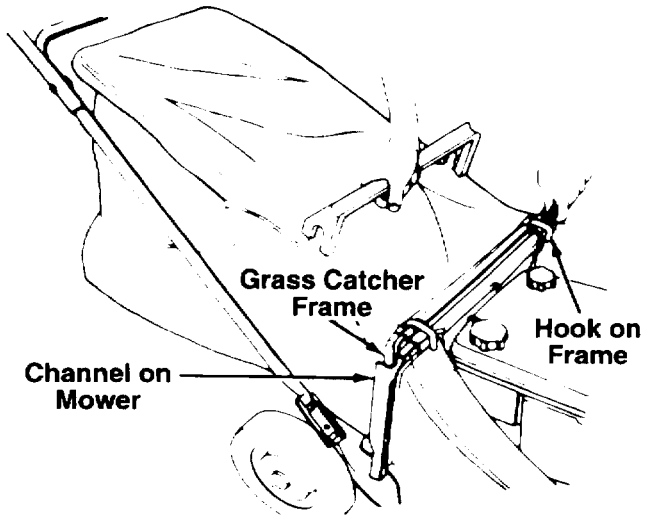


FIGURE 2.

TO ATTACH BAG TO MOWER

1. Hold the chute door on the catcher panel open as shown in figure 2.
2. Slide the frame of the grass catcher down into the channels on each side of the mower. The hooks on the frame go over the panel on the discharge chute. See figure 2.

To remove the grass catcher, lift the grass catcher straight up.

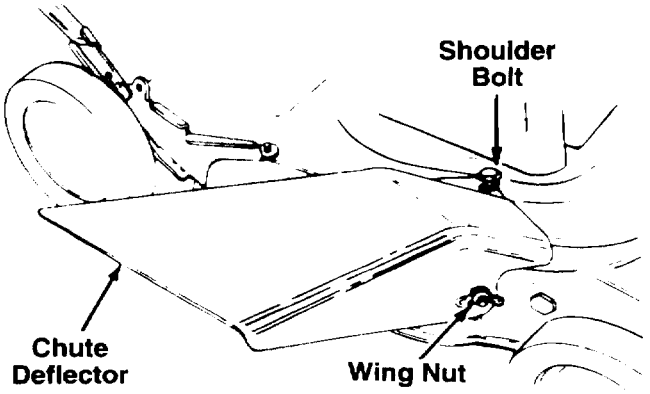


FIGURE 3.

TO CONVERT MOWER TO SIDE DISCHARGE

To convert your mower to a side discharge unit, proceed as follows.

1. Remove the rear discharge chute assembly by removing two wing nuts. Lift up on the two bottom corners of the discharge chute assembly, and slide it off the deck.
2. Attach the side chute deflector by first placing it over the rear bolt in the side of the deck. Then slide the notch in the top of the deflector around the shoulder bolt on top of the deck. Slide the notch in the side of the deflector around the front bolt in the side of the deck. See figure 3.

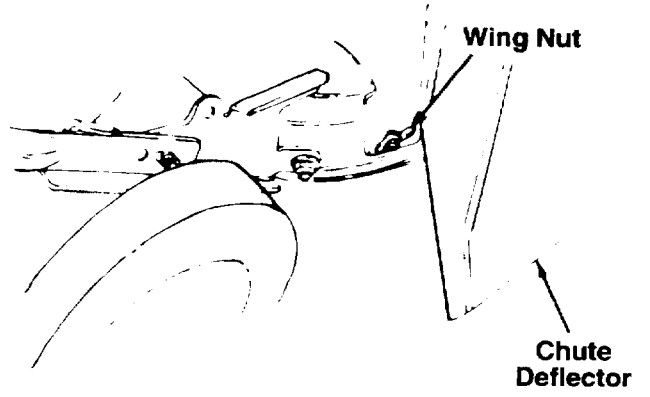


FIGURE 4.

3. Secure the front of the chute deflector to the bolt on the side of the deck with one wing nut. See figure 13. Secure the back of the chute deflector in the same manner. See figure 4.

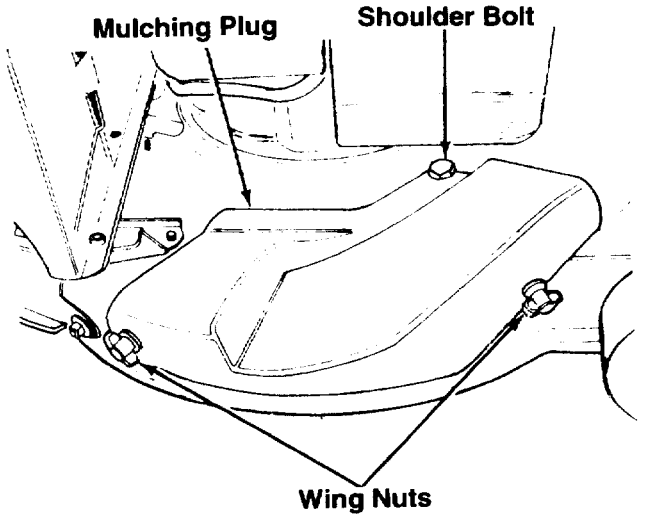


FIGURE 5.

TO CONVERT MOWER TO A MULCHER

To use your mower as a mulcher, proceed as follows.

1. Remove either the rear discharge chute assembly or the side chute deflector from the mower as instructed previously.
2. Attach the mulching plug by first placing it over the rear bolt in the side of the deck. Then slide the notch in the top of the mulching plug around the shoulder bolt on top of the deck. Slide the notch in the side of the mulching plug around the front bolt in side of the deck. Secure using two wing nuts. See figure 5.

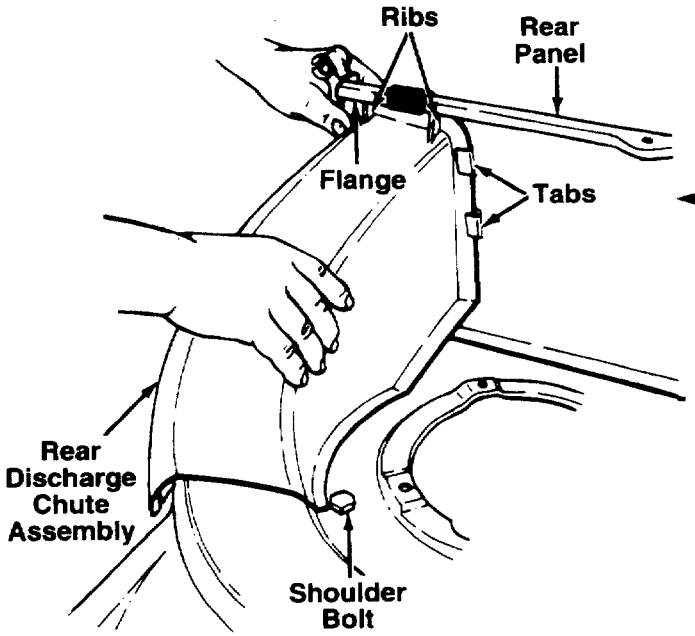


FIGURE 6.

REPLACING THE REAR DISCHARGE CHUTE

To replace the rear discharge chute assembly, proceed as follows.

Slide the ribs on the discharge chute assembly under the flange on rear panel as you insert the side of the discharge chute under the two tabs. See figure 6.

The edge of the discharge chute assembly goes under the shoulder bolt on deck. Push down on the chute assembly, and slide the bottom corner slots over the bolts on side of deck.

Press down on the discharge chute assembly and secure with wing nuts. Make certain wing nuts are seated properly.

WARNING: Never operate your unit without either the side chute deflector, mulching plug or entire rear discharge chute and grass catcher assembly in place.

CONTROLS

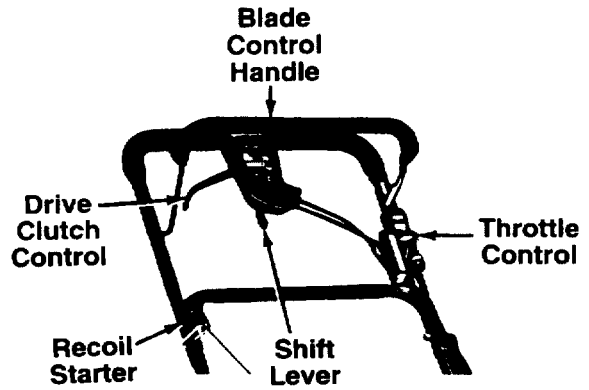


FIGURE 7.

BLADE CONTROL HANDLE

WARNING: This control mechanism is a safety device. Never attempt to bypass its operations.

The blade control handle is located on the upper handle of the mower. See figure 7. The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and blade.

WARNING: The blade will be rotating whenever the engine is running.

THROTTLE CONTROL

The throttle control is located on the left side of the upper handle. It is used to regulate the engine speed.

WARNING: The throttle control cannot be used to stop the engine.

RECOIL STARTER

The recoil starter handle is attached to the handle. See figure 7. Stand behind the unit in the operating position to start the unit.

DRIVE CLUTCH CONTROL

Squeezing the drive clutch control engages the drive mechanism to the rear wheels. Releasing the clutch control stops the rear wheels from driving. Release the drive clutch control to slow down when negotiating an obstacle, making a turn or stopping. See figure 7.

SHIFT LEVER

The six speed shift lever is located on the drive clutch control housing on the upper handle. See figure 7. This lever is used to select the operating speed of the mower. Release the drive clutch control when changing speeds.

IMPORTANT: Move the shift lever ONLY when the engine is running. Shifting the speeds with the engine off can cause damage to the unit.

OPERATION

TO REDUCE THE RISK OF INJURY, DO NOT OPERATE MOWER UNLESS REAR TRAILING SHIELD AND THIS GUARD OR ENTIRE GRASS CATCHER IS IN ITS PROPER PLACE.
DANGER
KEEP HANDS and FEET AWAY

FIGURE 8.

Keep hands and feet away from the chute area on cutting deck. See figure 8.

The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields. We recommend wide vision safety mask for over spectacles or standard safety glasses.

NOTE: *For best results raise the cutting position until it is determined which height is best for your lawn. See cutting height adjustment section.*

GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your mower. **Read instructions carefully.**

WARNING: Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

BEFORE STARTING

1. Before each use, check for proper drive clutch operation by performing the following before starting the engine:

   With the drive clutch control released, push mower forward. It should move freely. Pull mower backward. It should move with only a small amount of resistance.

   If it does not and the rear wheels tend to lock up, the clutch may not be releasing completely. Do not start the engine until corrections have been made. Check the control cable for severe bend, kinks and binding, or grass build-up around the belt. Correct and adjust as required. Refer to instructions under "Drive Clutch Control Adjustment" in Adjustment Section for loosening the drive belt.

2. Attach spark plug wire to spark plug. Make certain the metal loop on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug. See figure 9.

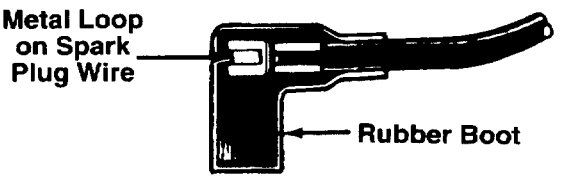


FIGURE 9.

TO START ENGINE AND ENGAGE BLADE

IMPORTANT: Move the shift lever only when the engine is running. Shifting the speeds with the engine off can cause damage to the unit. Disengage the drive clutch control when shifting speeds.

WARNING: When starting the unit for the first time, place mower in first speed (slow) position. Face the mower against a solid object such as a wall, fence, etc. Start the unit, and if it shows any signs of motion with the drive clutch control disengaged, shut the engine off immediately. Make certain the drive clutch control is adjusted so the drive belt is as loose as possible. Refer to the Adjustment Section.

1. Move the throttle control lever to all the way forward.
2. Prime engine as instructed in the separate engine manual packed with your unit.
3. Standing behind the unit, depress the blade control handle and hold it against the upper handle. Make certain drive clutch control handle is released.
4. Grasp starter handle and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly.
5. Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on start handle. Return it slowly to the rope guide.
6. After engine starts, move throttle control to FAST or desired engine speed.

NOTE: *If any problems are encountered, refer to the Trouble Shooting Guide on page 12.*

WARNING: Never operate your unit without either the side chute deflector or entire rear discharge chute and grass catcher assembly in place.

TO STOP ENGINE AND BLADE

1. Release the blade control handle to stop the engine and blade.

WARNING: The blade continues to rotate for a few seconds after the engine is shut off.

2. Disconnect the spark plug wire and ground it against the engine to prevent accidental starting while equipment is unattended.

USING YOUR ROTARY MOWER

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidently thrown by the mower in any direction and cause serious personal injury to the operator and others.

For the best results, do not cut wet grass because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut. Speed of the mower should be adjusted to the condition of the lawn.

When using the side discharge mower, the best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion, then recut at right angles to first direction.

For a healthier lawn, always cut off one-third or less of the total length of the grass. Lawn should be cut in the fall as long as there is growth.

This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of bagging the cut grass.

WARNING: If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

USING THE MULCHER

For effective mulching, do not cut wet grass because it tends to stick to the underside of the deck, preventing proper mulching of grass clippings. New or thick grass may require a narrower cut. The ground speed should be adjusted to the condition of the lawn. If mowing has been delayed and the grass has been allowed to grow in excess of 4", mulching is not recommended. Mow using the grass bag to reduce the grass height to 3-1/4" maximum before mulching. Never cut more than one-third off the total length of the grass at any one cutting.

ADJUSTMENTS

WARNING: Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

CUTTING HEIGHT ADJUSTMENT

The height adjustment handle is located on the left side of the deck. The handle may be placed in one of

nine cutting height positions. Push the handle to the left and then either forward to lower the cutting height or backward to raise the cutting height. See figure 10.

For rough or uneven lawns, move the height adjustment handle to a position which will give a higher cutting height.

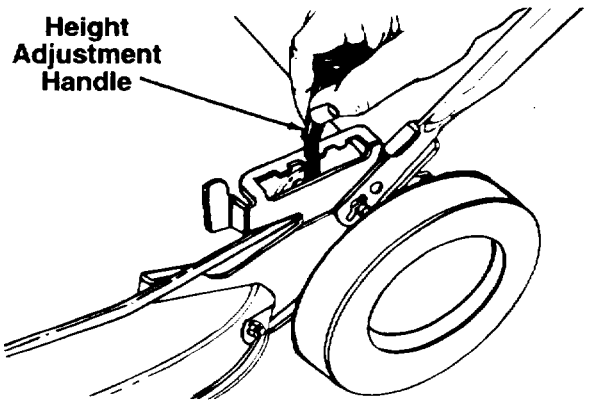


FIGURE 10.

HANDLE HEIGHT ADJUSTMENT

Your mower is shipped with the handle ready to assemble in the higher height position. To lower the handle height, proceed as follows.

1. Remove the starter rope from the rope guide (if attached).
2. Remove the upper handle by removing the hand knobs and carriage bolts. Lay the upper handle out of the way, being careful not to bend or kink the cables.
3. Remove the hairpin clips from the weld pins on the handle brackets. Press outward on the legs of the lower handle, and remove it from the mower.
4. Turn the lower handle around so the flat on the bottom is facing upward as shown in figure 11. Reassemble, placing the bottom holes in the handle over the weld pins in the handle mounting bracket.
5. Reassemble the upper handle.
6. Place the hairpin clips in the inner holes in the weld pins and attach the starter rope as instructed in the Assembly Instructions.

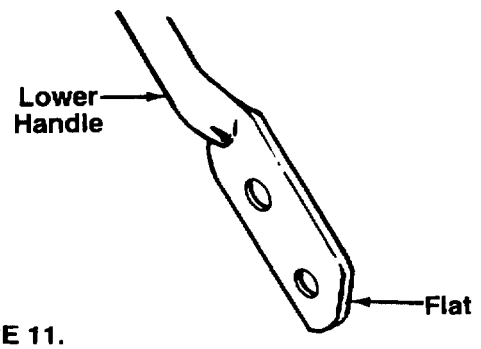


FIGURE 11.

DRIVE CLUTCH CONTROL ADJUSTMENT

Use the adjustment wheel located on the underside of the clutch control housing to tighten the drive belt if mower does not self-propel with the drive clutch control engaged, or if drive belt is slipping (unit hesitates while engine maintains the same speed). See figure 12.

In addition, the adjustment wheel may also be used to determine the position in which the drive clutch control is engaged. If it is more comfortable to have the drive engaged with the lever further away from the handle, tighten the drive belt.

Make certain to retest the unit for neutral as instructed in the Operation Section. Move the adjustment wheel in the opposite direction to loosen the drive belt if necessary.

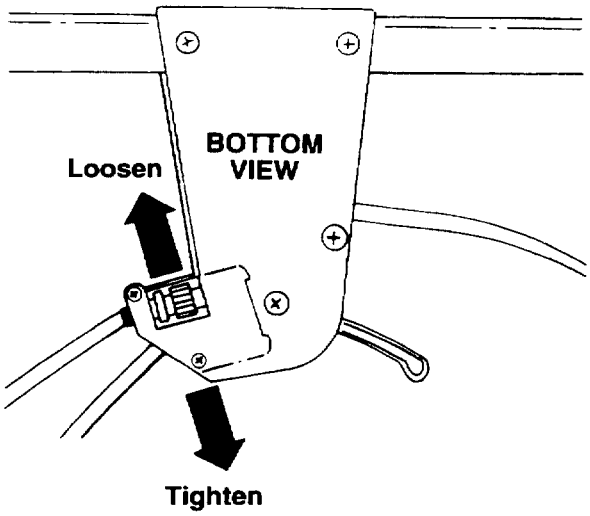


FIGURE 12.

THROTTLE CONTROL ADJUSTMENT

If the throttle control requires adjustment or if it has been replaced, adjust the throttle control as follows.

1. Remove the screw shown in figure 13. Remove the cable clamp from the cable.
2. Push the throttle control lever on the handle all the way forward as far as it will go, then back it off **one "click"**. Make certain the throttle control lever remains in this position.
3. Push the control lever on the engine as far toward the **rear** of the engine as it will go. Secure the cable in this position with the cable clamp and screw.

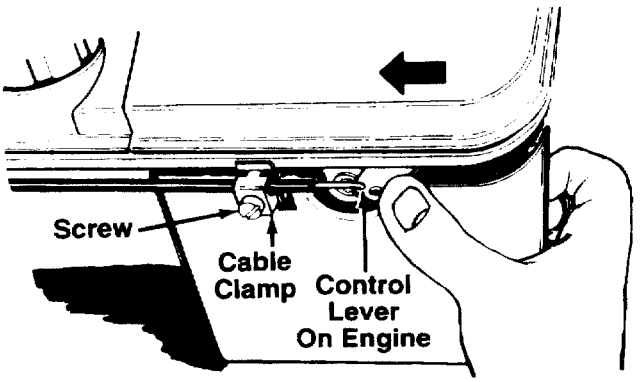


FIGURE 13.

SIX SPEED SHIFT CABLE ADJUSTMENT

Periodic adjustment of the six speed shift cable may be required due to normal stretch and wear on the cable. Adjustment is needed if all six speeds cannot be obtained.

The adjustable cable bracket is located on the left side of the mower, beside the engine. To adjust, loosen the hex nut which secures the adjustable cable bracket. See figure 14. Pull backward on the bracket (toward the rear of the mower). Retighten the hex nut. Test the speeds on the mower (engine must be running).

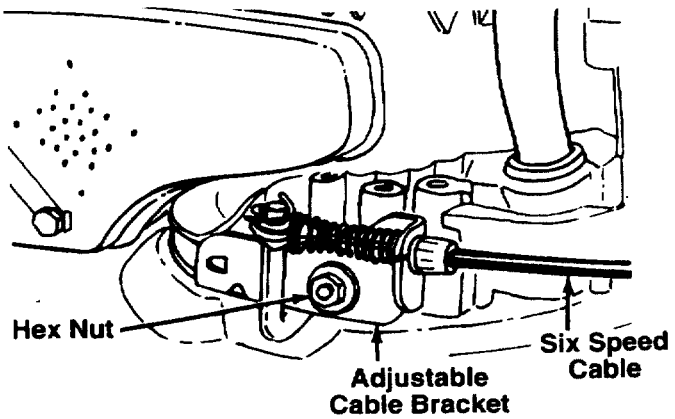


FIGURE 14.

CARBURETOR ADJUSTMENTS

WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load. Refer to the separate engine manual packed with your mower for carburetor adjustment information.

NOTE: *A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.*

LUBRICATION

WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

Blade Control—Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. See figure 15. The blade control must operate freely in both directions.

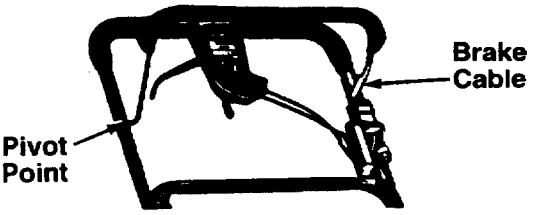


FIGURE 15.

Wheels—Lubricate the wheel bearings at least once a season with light oil. Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

Engine—Follow engine manual for lubrication instructions.

Transmission—The transmission is pre-lubricated and sealed at the factory. It does not require checking. If disassembled for any reason, fill with 2 ounces of Alvania grease, part number 737-0168.

MAINTENANCE

WARNING: Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.

NOTE: *When tipping the unit, empty the fuel tank and keep engine spark plug side up.*

TROUBLE SHOOTING

Refer to page 12 of this manual for trouble shooting information.

CUTTING BLADE

When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade. Remove the bolt and bell washer which hold the blade and adapter to the engine crankshaft. Remove the blade and adapter from the crankshaft.

If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter.

WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

It is recommended that the blade always be removed from the adapter for the best test of balance. The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

Blade Mounting Torque

Center Bolt: 450 in. lb. min., 600 in. lb. max.
Blade Adapter Bolt: 200 in. lb. min., 300 in. lb. max.

To insure safe operation of your unit, all nuts and bolts must be checked periodically for correct tightness.

DECK

The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

ENGINE

Refer to the separate engine manual for engine maintenance instructions.

Maintain **engine oil** as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service **air cleaner** every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

The **spark plug** should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt and combustible debris from muffler area.

BELT REMOVAL AND REPLACEMENT

1. Disconnect the spark plug wire and ground it against the engine.
2. Drain the fuel tank or place a piece of plastic beneath the cap to prevent gasoline leakage.
3. Remove the grass bag, rear discharge chute assembly and catcher panel.
4. Remove the transmission belt cover by removing three bolts. See figure 16.
5. Tip the mower on its side, and block securely.

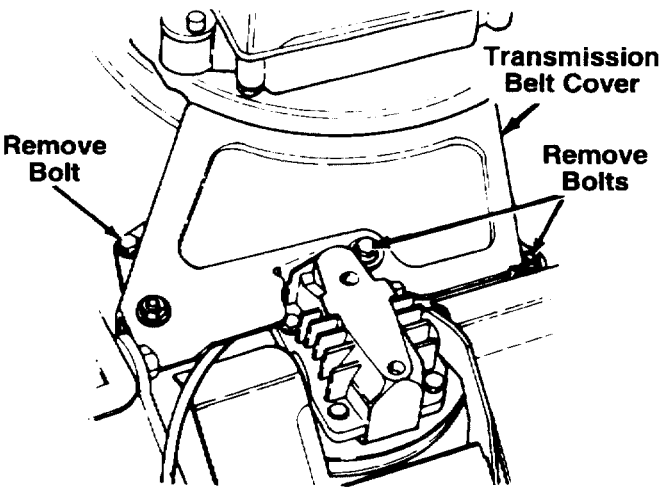


FIGURE 16.

6. Remove the inside belt guard by removing two self-tapping screws. A 3/8" wrench is required. See figure 17.

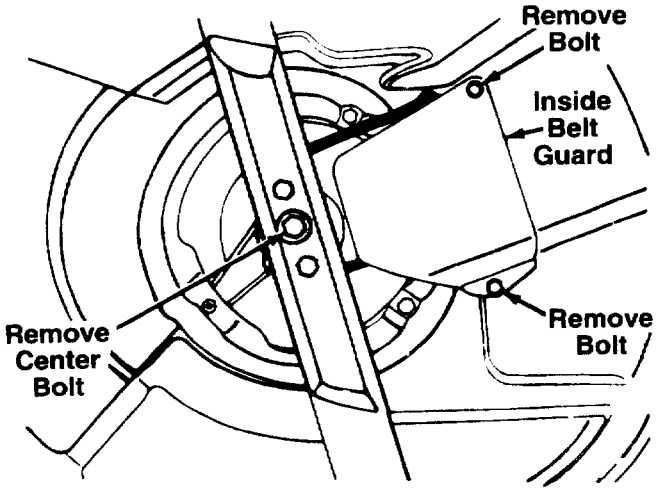


FIGURE 17.

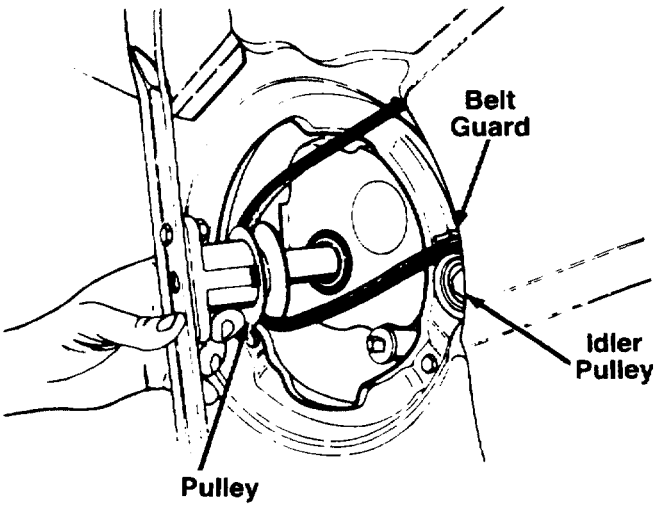


FIGURE 18.

7. Loosen (do not remove) the bolt which secures the idler pulley so you can remove the belt from between the idler pulley and the belt guard on the idler pulley bracket. See figure 18.
8. Remove the belt from the transmission pulley by pulling it underneath the pulley.
9. Remove the belt from around the blade.

NOTE: *Before reassembling, it is suggested that you remove the idler pulley from the idler bracket, and clean and re-grease the needle bearing inside the pulley using an all-purpose grease. When reassembling, cupped side of washer must be against the idler bracket.*

10. Reassemble new belt, following instructions in reverse order. Belt must be inside the belt keeper which is part of the pulley half (ref. 171 on page 14).

NOTE: *When reassembling the transmission belt cover, be certain the belt guard on the transmission cover is approximately 1/8" away from the belt (see ref. 45 on page 13). Make certain to tighten all nuts and bolts securely. If plastic was placed under the gas cap, be certain to remove it.*

OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

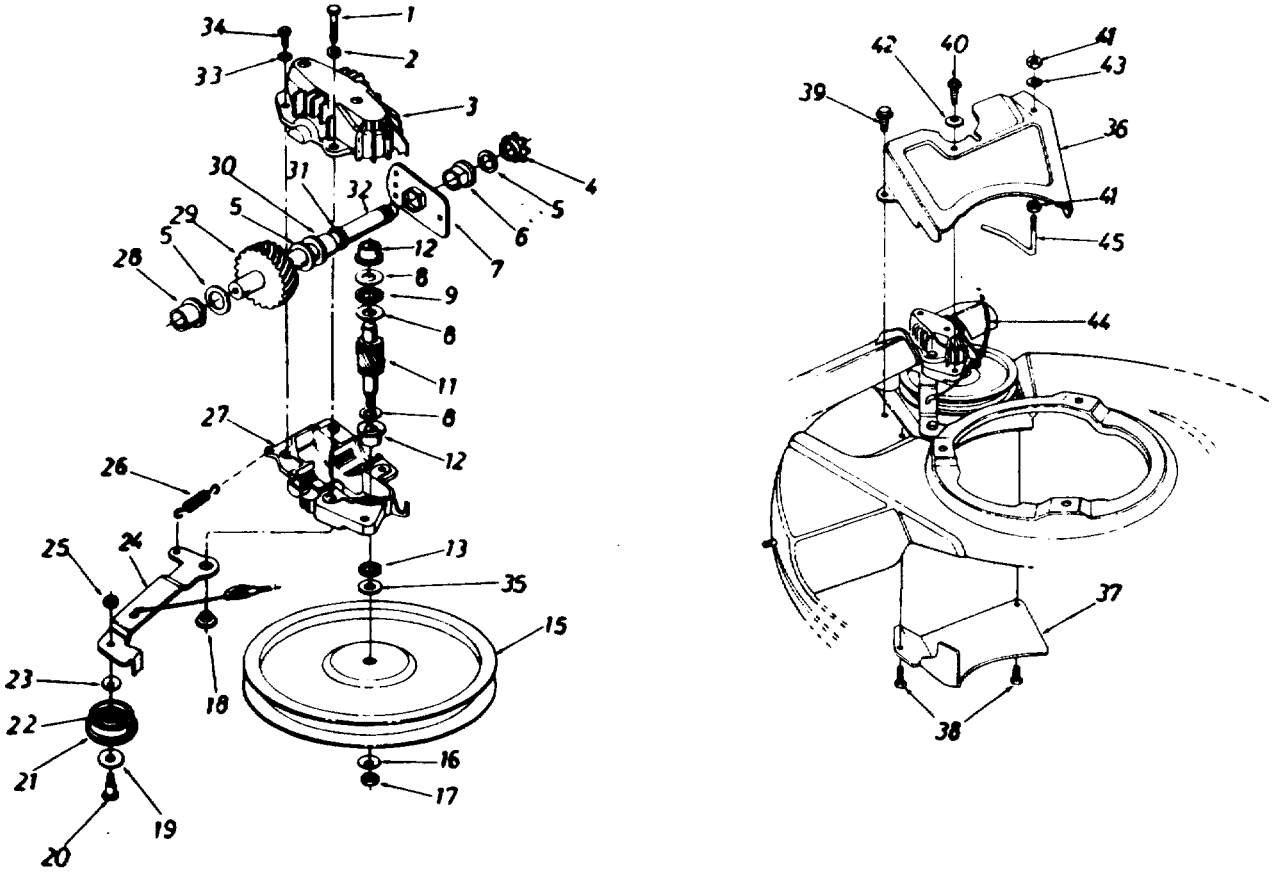
NOTE: *When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.*

TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	1. Blade control handle disengaged. 2. Spark plug wire disconnected. 3. Throttle control lever not in START position. 4. Fuel tank empty, or stale fuel. 5. Blocked fuel line. 6. Faulty spark plug. 7. Engine flooded.	1. Engage blade control handle. 2. Connect wire to spark plug. 3. Move throttle lever to START position. 4. Fill tank with clean, fresh gasoline. 5. Clean fuel line. 6. Clean, adjust gap or replace. 7. Remove spark plug, dry the plug, and crank engine with plug removed and throttle in off position. Replace spark plug, connect wire and resume starting procedures.
Engine runs erratic	1. Unit running in START position. 2. Spark plug wire loose. 3. Blocked fuel line or stale fuel. 4. Vent in gas cap plugged. 5. Water or dirt in fuel system. 6. Dirty air cleaner. 7. Carburetor out of adjustment.	1. Move throttle lever to FAST position. 2. Connect and tighten spark plug wire. 3. Clean fuel line; fill tank with clean, fresh gasoline. 4. Clear vent. 5. Drain fuel tank. Refill with fresh fuel. 6. Clean air cleaner.† 7. Adjust carburetor.†
Engine overheats	1. Engine oil level low. 2. Air flow restricted. 3. Carburetor not adjusted properly.	1. Fill crankcase with proper oil. 2. Remove blower housing and clean.† 3. Adjust carburetor.†
Occasional skip (hesitates) at high speed	1. Spark plug gap too close. 2. Carburetor idle mixture adjustment improperly set.	1. Adjust gap to .030". 2. Adjust carburetor.†
Idles poorly	1. Spark plug fouled, faulty or gap too wide. 2. Carburetor improperly adjusted. 3. Dirty air cleaner.	1. Reset gap to .030" or replace spark plug. 2. Adjust carburetor.† 3. Clean air cleaner.†
Excessive vibration	1. Cutting blade loose or unbalanced. 2. Bent cutting blade.	1. Tighten blade and adapter. Balance blade. 2. Replace blade.
Mower will not	1. Engine speed too low. discharge grass 2. Wet grass. 3. Excessively high grass.	1. Set throttle between 3/4 and full throttle. 2. Do not mow when grass is wet; wait until later to cut. 3. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath (1/2 width).
Uneven cut	Dull blade.	Sharpen or replace blade.

†Refer to separate engine manual packed with your unit.
Note: For repairs beyond the minor adjustments listed above, contact your local authorized service dealer.

Model 848F

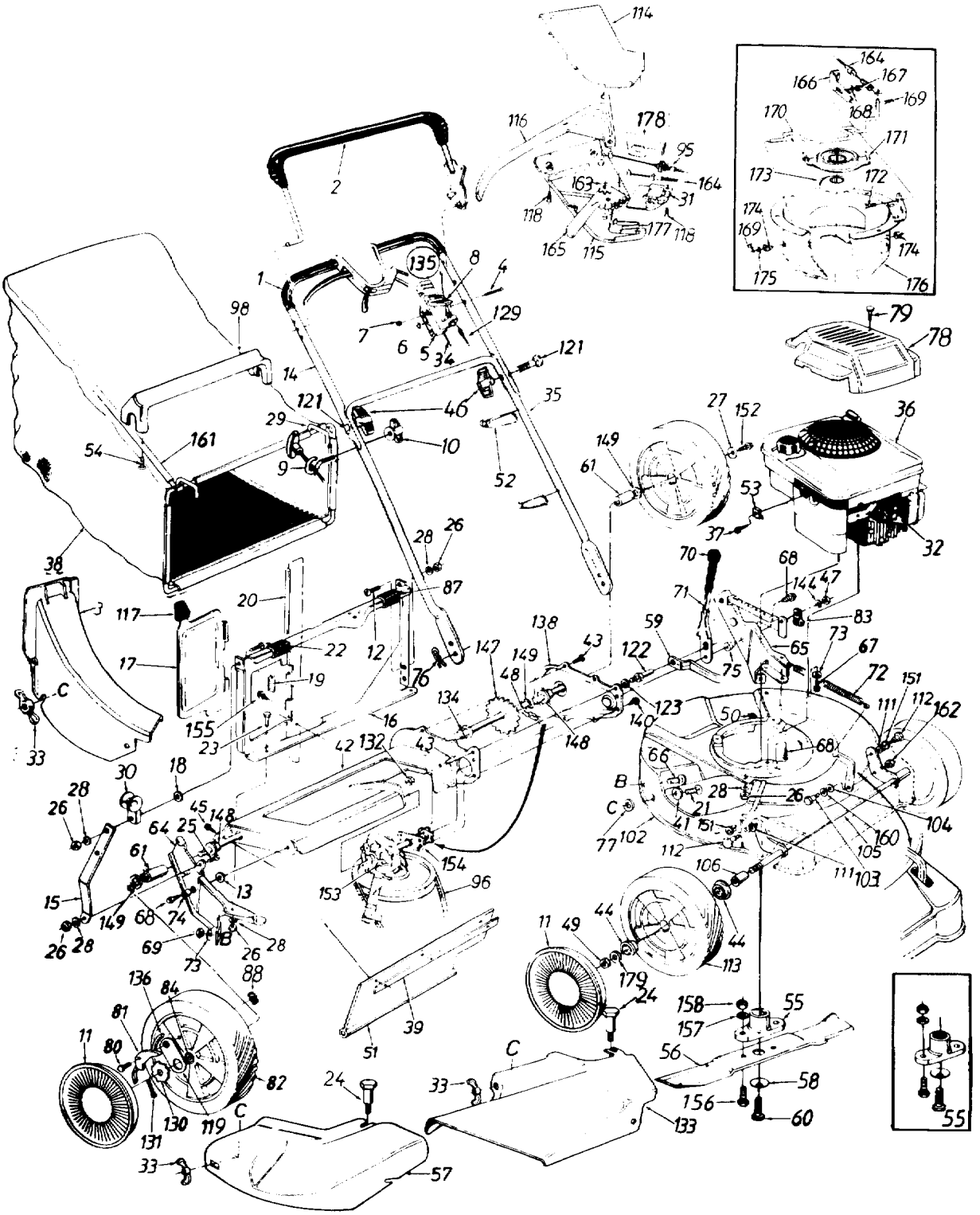


PARTS LIST FOR MODEL 848F ROTARY MOWER

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-1062		Hex Bolt 1/4-20 x 1.25" Lg.* w/Patch	24	17052A		Idler Brk't. Ass'y.†
				25	712-0138		Hex Patch L-Nut 1/4-28 Thd.†
2	726-0329		L-Wash. 1/4" I.D.*	26	732-0357A		Extension Spring 1.12" Lg.†
3	717-0418A		Upper Hsg. Half	27	717-0419A		Lower Hsg. Half
4	713-0400		#48 Sprocket 7 Tooth x 1/2 Pitch	28	741-0415		Flange Bearing .56 Dia.
5	736-0336		Fl-Wash. 5/8" I.D. x .030	29	717-0422A		33 Tooth Helical Gear
6	741-0413		Hex Flange Brg. .631" I.D.	30	741-0414		Flange Bearing .629 Dia.
7	16500A		Hex Bearing Cup	31	721-0213		Oil Seal .625 Dia.
8	736-0314		Thrust Wash. .382" I.D. x .70" O.D.	32	738-0607A		Gear Sprocket Shaft
				33	736-0722		L-Wash. #10 I.D.
9	741-0479		Thrust Bearing .375" I.D. x .812" O.D.	34	710-0436		Hex B-Tap Scr. #10 x .62"
				35	736-0410		Hex Washer .26" x .88"†
11	717-1216		11 Tooth Helical Gear	36	17718		Transmission Belt Guard†
12	748-0208A		Flange Bearing	37	17065A		Belt Cover†
13	721-0212		Oil Seal	38	710-0352		Hex B-Tap Scr. 1/4 x .38" Lg.†
15	756-0330A		Fl-Pulley 5.06" I.D.†	39	710-0599		Hex AB-Tap Scr. 1/4 x .50" Lg.†
16	736-0270		Bell-Wash. .265" I.D. x .75"†	40	710-0896		Hex B-Tap Scr. 1/4 x .62" Lg.
17	712-0351		Hex Nut 1/4-28 L.H. Thd.†	41	712-0287		Hex Nut 1/4-20 Thd.*†
18	738-0440		Shld. Spacer .375" Dia. x .170†	42	736-0270		Bell-Wash. .265" I.D. x .75"†
19	736-0344		Fl-Wash. .390" I.D. x 1.0"†	43	736-0329		L-Wash. 1/4" I.D.*†
20	738-0826		Shld. Bolt .375" Dia. x .40"†	44	746-0710A		S.P. Cable—48" Lg.†
21	756-0558		Fl-Idler Plastic 1.50" Dia.†	45	747-0549		S.P. Belt Guard†
22	741-0556		Needle Brg. .375" x .31"†	—	618-0055		Transmission Comp.
23	736-0270		Bell-Wash. .265" I.D. x .75"†				

†Not Part of Transmission Complete

Model 848F



Model 848F

PARTS LIST FOR MODEL 848F ROTARY MOWER

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0225		Foam Grip—2 Req'd.	59	16863		Height Adj. Connecting Arm
2	747-0824		Control Handle Ass'y.	60	710-0757		Hex Bolt 7/16-20 x 1.5" Lg. (Grade 5)
3	731-1023		Rear Discharge Chute Ass'y.				
4	710-0605		Oval C-Sunk Scr.	61	748-0190		Spacer .513" I.D. x .703" O.D. x .69" Lg.
5	746-0875		Throttle Body				
6	736-0501		Spr. Wash. .66" I.D.	63	736-0119		L-Wash. 5/16" I.D.*
7	712-0324		Hex L-Nut 1/4-20 Thd.	64	16136A		R.H. Handle Wheel Brkt. Ass'y.
8	746-0876		Throttle Lever	65	16137B		L.H. Handle Wheel Brkt. Ass'y.
9	710-1205		Rope Guide	66	710-0260		Carriage Bolt 5/16-18 x .62"*
10	712-0397		Wing Nut 1/4-20 Thd.	67	710-0603		Hex Wash. Hd. B-Tap Scr. 5/16-18
11	731-1426		Hub Cap				
12	710-0946		Truss Mach. Scr. 1/4-20 x .62" Lg.	68	710-0654A		Hex Wash. Hd. TT-Tap Scr. 3/8-16
13	736-0258		Fl-Wash. .383" I.D. x 1" O.D.	69	712-0267		Hex Nut 5/16-18 Thd.*
14	749-0439B		Upper Handle—Painted	70	720-0223		Grip
15	16129A		Panel Support Brkt.	71	732-0606		Height Adj. Lever
16	16862		Rear Catcher Panel Ass'y.	72	732-0362		Extension Spring .75" O.D. x 8" Lg.
17	17095A		Rear Discharge Door				
18	736-0211		Fl-Wash. .285" I.D. x 1.25" O.D.	73	736-0242		Bell-Wash. 5/16" I.D.
19	732-0483A		Torsion Spring	74	750-0736		Spacer
20	747-0514		Pivot Pin	75	750-0624		Shld. Spacer .500" Dia.
21	710-0134		Carriage Bolt 1/4-20 x .62"*	76	714-0104		Hairpin Clip
22	710-0255		Truss Mach. Scr. 1/4-20 x 3/4" Lg.	77	726-0233		Bolt Retainer 1/4 x .50" O.D.
				78	731-1402		Engine Shroud
23	710-0289		Hex Bolt 1/4-20 x .50" Lg.*	79	710-1256		Screw #10 x 1.25" Lg.
24	738-0704		Shoulder Bolt .312 Dia. x .18 Lg.—Special	80	738-0137		Shld. Scr. .342" Dia. x .268
				81	748-0188B		Pawl
25	710-0258		Hex Bolt 1/4-20 x .62" Lg.*	82	734-1791		Rear Wheel Ass'y. Comp.
26	712-0287		Hex Nut 1/4-20 Thd.*	83	726-0175		Clamp
27	736-0270		Bell-Wash. 1/4" I.D.	84	741-0486B		Bearing 1/2" I.D.
28	736-0329		L-Wash. 1/4" I.D.*	87	731-0880		Panel Clip
29	747-0705		Front Grass Catcher Frame	88	712-0414		Weld L-Nut 1/4-20 Thd.
30	719-0279		Rope Guide	95	746-0710A		S.P. Cable
31	731-0906		S.P. Control Cover	96	754-0343		"V"-Belt
32	735-0639		Spark Plug Insulator	97	710-0969		Hex AB-Tap Scr. 1" Lg.
33	712-0397		Wing Nut w/Washer	98	731-0801		Bag Handle
34	746-0674		Throttle Control Wire 61"	102	16859A		21" Deck Ass'y.
35	749-0907	N	Lower Handle	103	738-0234		Shld. Bolt .5" Dia. x .295
36	—		Engine	104	736-0253		Bell-Wash. .515" I.D. x 1.0" O.D.
37	710-1237		Hex Self-Tap Scr. #10-32 x .62" Lg.	105	16856		Front Axle Ass'y.
38	764-0257		Grass Bag	106	711-0313		Sleeve .526" I.D. x .690" O.D. x .880" Lg.
39	14835		Retaining Strip				
41	736-0204		Fl-Wash. .344" I.D. x .62"	111	736-0221		Intern. L-Wash. 3/8 I.D.*
42	17055B		Chain—Axle Ass'y.	112	738-0705		Shld. Bolt .575" Dia. x .42
43	710-0352		Hex B-Tap Scr. 1/4" x .38" Lg.	113	734-1790		Front Wheel Ass'y. Comp.
44	741-0484		Ball Bearing 1/2" I.D.	114	731-0904		Self-Propelled Control Cover
45	710-0776A		Hex AB-Tap Scr. 1/4 x .62"	115	731-0905		Self-Propelled Control Cover
46	720-0276		Hand Knob	116	731-0620		Control Lever
47	712-0296		Hex Patch L-Nut 3/8-24 Thd.	117	720-0190		Door Grip
48	713-0353		#48 Chain .500" Pitch x 30 Links	118	710-0841		Fl-"C"-Sunk Hd. Tap Scr. #10 x .75" Lg.
49	712-0346		Hex L-Nut 1/2-20 Thd.	119	16855		Pawl Plate
50	731-0564		Plug	121	710-1174		Curved Hd. Bolt 5/16-18 x 2" Lg.
51	731-0672A		Rear Flap 3.75" x 17.30" Lg.				
52	726-0240		Cable Tie	122	711-0805		Shld. Pin 3/8-24 x 1.43" Lg.
53	751-0568		Cable Clamp	123	736-0169		L-Wash. 3/8" I.D.*
54	710-1025		Hex AB Scr. #12 x 1.25" Lg.	129	746-0912	N	Control Cable 43" Lg.
55	753-0485		Blade Adapter Kit	130	748-0318		Ratchet Wheel 1.62" O.D.
56	742-0721	N	21" Mulching Blade	131	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.*
57	731-1343		Mulching Plug	132	712-0711		Hex Jam Nut 3/8-24 Thd.
58	736-0453		Bell-Wash. .46" I.D.	133	731-0884		Side Chute Deflector Ass'y.

Model 848F

PARTS LIST FOR MODEL 848F ROTARY MOWER (CONTINUED)

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
134	741-0522		Hex Flange Bearing	158	712-0241		Hex Nut 3/8-24 Thd.
135	811-00185		Throttle Box Comp. (Incl. Ref. 4, 5, 6, 7, 8)	160	736-0108		Fl-Wash. .51" I.D. x .75" O.D.
				161	749-0764A		Rear Catcher Frame
136	10622B		Spring—Nylon	162	712-0266		Hex Jam Nut 3/8-16 Thd.
138	17053A		Chain Cover	163	713-0397		3 Tooth Rack Gear Insert
140	710-0599		Hex Wash. S-Tap Scr. 1/4-20 x .50" Lg.	164	746-0706		Spd. Control Cable—50" Lg.
				165	731-0924		6-Spd. Shift Lever
144	736-0300		Fl-Wash. .385" I.D. x .87"	166	17070		Adjustable Cable Brkt.
147	738-0719A		Rear Shaft Ass'y. 21.94" Lg.	167	736-0270		Bell-Wash. .265" I.D. x .75" O.D.
148	741-0324		Hex Flange Bearing .506" I.D. Plastic	168	712-0291		Hex Cent. L-Nut 1/4-20 Thd.
149	736-0160		Fl-Wash. .531" I.D. x .930"	169	714-0507		Cot-Pin 3/32" Dia. x .75" Lg.
151	741-0491		Flanged Nyliner Brg.	170	747-0684		Shift Rod
152	710-0751		Hex Bolt 1/4-20 x .62" Lg. (Grade 5)	171	741-0500A		Movable Pulley Half Ass'y.
				172	710-0167		Carr. Bolt 1/4-20 x .50" Lg.
153	618-0055		Transmission Comp. (See Breakdown)	173	756-0503		Spined Pulley Half
				174	731-1137		Flanged Bushing
154	16500		Hex Bearing Cup	175	736-0278		Fl-Wash. .328" I.D. x .68" O.D.
155	710-0429		Hex B-Tap Scr. #10 x .38	176	17073		Cable Mtg. Brkt. Ass'y.
156	710-1055		Hex Scr. 3/8-24 x 1.0" Lg.	177	732-0627		Shift Lever Spring
157	736-0169		L-Wash. 3/8" I.D.	178	16864		6-Speed Rack Cable Brkt.

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

CODE: N notates a **new part** (not previously existing).
COLOR: A three digit number is the **color code**. Specify color code if color or finish is important when ordering parts. [i.e., (part no.)-665 for Green Finish]

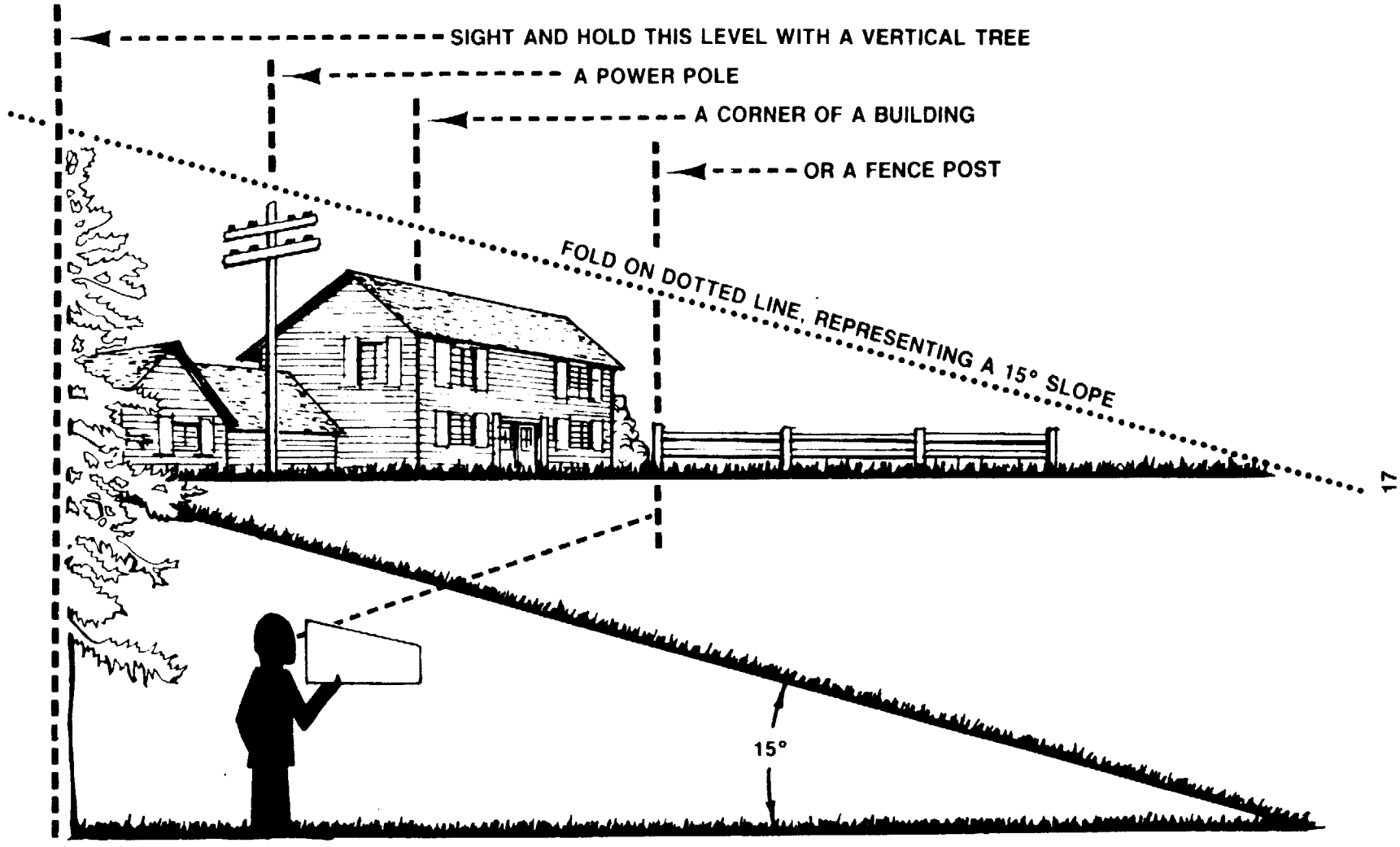
NOTE

Specifications subject to change without notice or obligation.

NOTE: The engine is not under warranty by the mower manufacturer. . .If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines–Gasoline."

USE THIS PAGE AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

SLOPE GAUGE


SIGHT AND HOLD THIS LEVEL WITH A VERTICAL TREE
A POWER POLE
A CORNER OF A BUILDING
OR A FENCE POST
FOLD ON DOTTED LINE, REPRESENTING A 15° SLOPE
15°

WARNING

Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.
Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

MANUFACTURER'S LIMITED WARRANTY

THE YARD-MAN TWO YEAR SUPREME WARRANTY:

For TWO YEARS from the date of retail purchase within the United States of America, its possessions and territories, YARD-MAN will, at its option, repair or replace, for the original purchaser, free of charge, any part or parts found to be defective in material or workmanship. This warranty covers units which have been operated and maintained in accordance with the owner's instructions furnished with the unit, and which have not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance or alteration. Normal wear parts or components thereof are subject to separate terms as noted below in the "NO FAULT Ninety Day Consumer Warranty" clause.

NO FAULT Ninety Day Consumer Warranty on Normal Wear Parts: All normal wear part failures will be covered on this product for a period of 90 days regardless of cause. After 90 days, but within the two year warranty period, normal wear part failures will be covered if caused by defects in material or workmanship of other component parts. Normal wear parts are defined as batteries, belts, blades, blade adapters, grass bags, rider deck wheels, seats and tires.

How to Obtain Service: Warranty service is available, with proof of purchase, through your local authorized service dealer or distributor. To locate the dealer or distributor in your area, please check the yellow pages or contact the Customer Service Department of YARD-MAN, P.O. Box 368022, Cleveland, Ohio 44136-9722, phone (216) 225-7711. The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by the Service Department of YARD-MAN.

Transportation Charges: Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any part submitted for replacement under this warranty must be paid by the purchaser unless such return is requested in writing by YARD-MAN.

Units Exported Out of the United States: YARD-MAN does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except, those sold through YARD-MAN's authorized channels of export distribution.

Other Warranties:

1. The engine or motor or component parts thereof carry separate warranties from their manufacturers. Please refer to the applicable manufacturer's warranty on these items.
2. Log splitter pumps, valves and cylinders or component parts thereof are covered by a one year warranty.
3. **All other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose are hereby expressly disclaimed in their entirety.**
4. The provisions as set forth in this warranty provide the sole and exclusive remedy of YARD-MAN's obligations arising from the sale of its products. **YARD-MAN will not be liable for incidental or consequential loss or damage.**

How State Law Relates to This Warranty: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Certain disclaimers are not allowed in some states and therefore they may not apply to you under all circumstances.

Note: This warranty does not cover routine maintenance items such as lubricants, filters, blade sharpening and tune-ups, or adjustments such as brake adjustments, clutch adjustments or deck adjustments. Nor does this warranty cover normal deterioration of the exterior finish due to use or exposure.

YARD-MAN

YARD-MAN • P.O. Box 368022 • Cleveland, Ohio 44136-9722